All-Weather Road Servicing Options for Ilford Public Consultation

Report

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All-Weather Road Servicing Options for Ilford Public Consultation

Province of Manitoba, Ministry of Transportation and Government Services Department

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Submitted by

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Attention: Mr. Amar Chadha, P. Eng.
Director of Transportation Systems Planning and Development

Summary Report for the Community of Ilford Public Consultation

Dear Mr. Chadha:

Attached find the summary report for the Public Consultation and associated technical work that has been carried out relative to community access for Ilford.

During the Public Consultation in Ilford, the existing rail, air, and winter road access conditions were reviewed with community and community leadership. Discussions also centred on the potential for access improvements and potential options for an All-Weather Road access. The visit to the community and discussions with the chief, other community leaders, and residents provided the study team with a greater appreciation of the specific access issues faced by Ilford residents.

We would like to acknowledge the support of the community leadership and also the direct involvement and technical input of Manitoba Transportation and Government Services.

Yours truly,

Dillon Consulting Limited

David P. Krahn, P. Eng.
Project Manager
Transportation Engineering
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SYNOPSIS

The community of Ilford with its 230 population is served by a combination of railway/winter road and charter air operation. Access to the community from Thompson is assured on a year around basis.

There is a general perception in the community that the railway service is too slow and not always reliable; this along with poor winter road grades and conditions inhibit efficient transport of goods and people, and that air travel is too expensive. An All-Weather Road connection is viewed as desirable.

An All-Weather Road to Ilford is estimated to cost from $45 to $50 Million. When combined with York Landing, transportation benefit cost coverage on a present-value basis is less than 35%. Given the existing year-around service provided by a combination of rail, air, and winter road, the project will face strong competition for funding priority from numerous more remote communities and would have to be largely justified on a socioeconomic basis.

Given that Ilford does have railway access throughout the year, it is recommended that consideration be given to progressively improve the existing road transportation system. This could largely be achieved by staged construction of 50 km of All-Weather Road from Ilford to Split Lake (on the Nelson River). Ferry service could be provided during the open water season at the Nelson River crossing. This approach would ultimately involve an estimated $23 M capital cost and would achieve better, more reliable access with nominal increases in annual operating and maintenance costs.

As a short-term measure, consideration could be given to improved rail service such as a rail bus operation for several rail dependent communities (e.g., Ilford, Pikwitonei, and Thicket Portage). This approach would involve active support from Hudson Bay Railroad and VIA, as well as the above communities. Further study of the actual costs ($0.5 to $1.0 M/year) and benefit cost coverage (estimated at 15% to 25%) would be required.

In the longer-term, the community's best interests would be served by an AWR. There are currently four potential alignment scenarios for such a road, which are presented in this paper. The relative viability of these alternatives is influenced by as yet undetermined time frames, a go versus no-go decision of Manitoba Hydro's Gull Rapid generating station and considerable range of travel times to and from Thompson. To maximize the benefits and economic justification, there should also be a road connecting Ilford and York Landing.

It is therefore recommended that there be a route selection study undertaken to establish the most cost-effective All-Weather Road corridors and examine in more detail the probable time frames/interim winter road/ferry/rail service strategies. This would permit more appropriate decisions on short-term stream crossing installations to extend winter road operational windows, enhanced ferry and rail services, and acceptable environmental impacts.

The route selection study would initially reduce the number of alternatives under consideration and then identify the further steps necessary to allow a decision on short-term and long-term access strategies and priorities.

1.0 INTRODUCTION

A public consultation meeting was held in the community ofIlford in March 2001. The objectives of this meeting were to seek community input on future directions concerning transportation initiatives. This information will be used to provide the Province of Manitoba, Ministry of Transportation and Government Services Department with a better insight into the existing transportation system, seek possible justification for an All-Weather Road, and to examine alternative means of improving transportation service to Ilford.

In attendance at the meeting were:

- Betsy Kennedy, Councillor
- Philip Morris, Councillor
- Rusty Beardy, Councillor
- Janet Flett, Councillor
- Edward Dusrun, Councillor
- Roy Dusrun, Councillor
- Conrad Beardy, Councillor
- Candice Leliberty, Daycare Director
- Judak Spruce, Constable
- Dwayne Flett, Water Technician
- Rod Murphy, Minister's Office
- Dan Highway, Manitoba Transportation
- Amar Chadha, Manitoba Transportation
- Mr. David Krahn, Dillon Consulting Limited
- Harold Westdal, H.N. Westdal & Associates

The objectives of this report are to summarize consultative exercises conducted with the community and to examine feasible options and a future strategy for the development of an All-Weather Road to service the community.

2.0 EXISTING TRANSPORTATION SYSTEM AND SERVICE LEVELS

2.1 Community Profile

The community of Ilford is an isolated community located approximately 145 km northeast of Thompson, Manitoba. The community has a population of approximately 230 people. Employment in the community is a chronic problem. Statistics Canada records the unemployment rates in the community at 25% based on the 1996 census. Like most communities in northern Manitoba, this number is expected to be higher since the community has grown by approximately 30% (53 people) since the last census. Employment in the community is largely derived in the service industry (health, education, stores, public works, etc.). Fishing and trapping is also conducted largely for subsistence living and sale of furs.

Population projections for Ilford are as follows:

Year	Population
2000	230
2010	376
2020	574
2030	877

Source: Manitoba Transportation and Government Services

The community relies on a winter road, the Hudson Bay Railroad, and air service for freight and passenger movement. The winter road to Ilford begins at Split Lake off Provincial Road 280 and extends through York Landing to Ilford. The Split Lake to York Landing and York Landing to Ilford winter road totals approximately 64 km.

Reportedly, approximately 35% of all supplies are shipped to Ilford on the winter road. Rail shipments account for approximately 62% of all freight with air shipments accounting for the remainder. Rail service is provided by Hudson Bay Railroad along the Churchill line. Ilford is serviced by Hudson Bay Railroad approximately three times per week from Thompson.

The following discussion provides a general overview of the existing transportation network.

2.2 Air Service

Ilford has a 914 m runway. No scheduled air service is provided to the community. All air traffic is generally the charter of people and freight to and from the community plus Medivac flights.

Approximately 310 aircraft movements were recorded at Ilford in 1999. Air travel accounted for approximately 1,000 passengers arriving or leaving Ilford in 1999 and the shipment of approximately 12 tonnes of freight. Air freight shipments have varied from a low of 12.5 tonnes to a high of 39.2 tonnes between the years of 1990 and 1999.

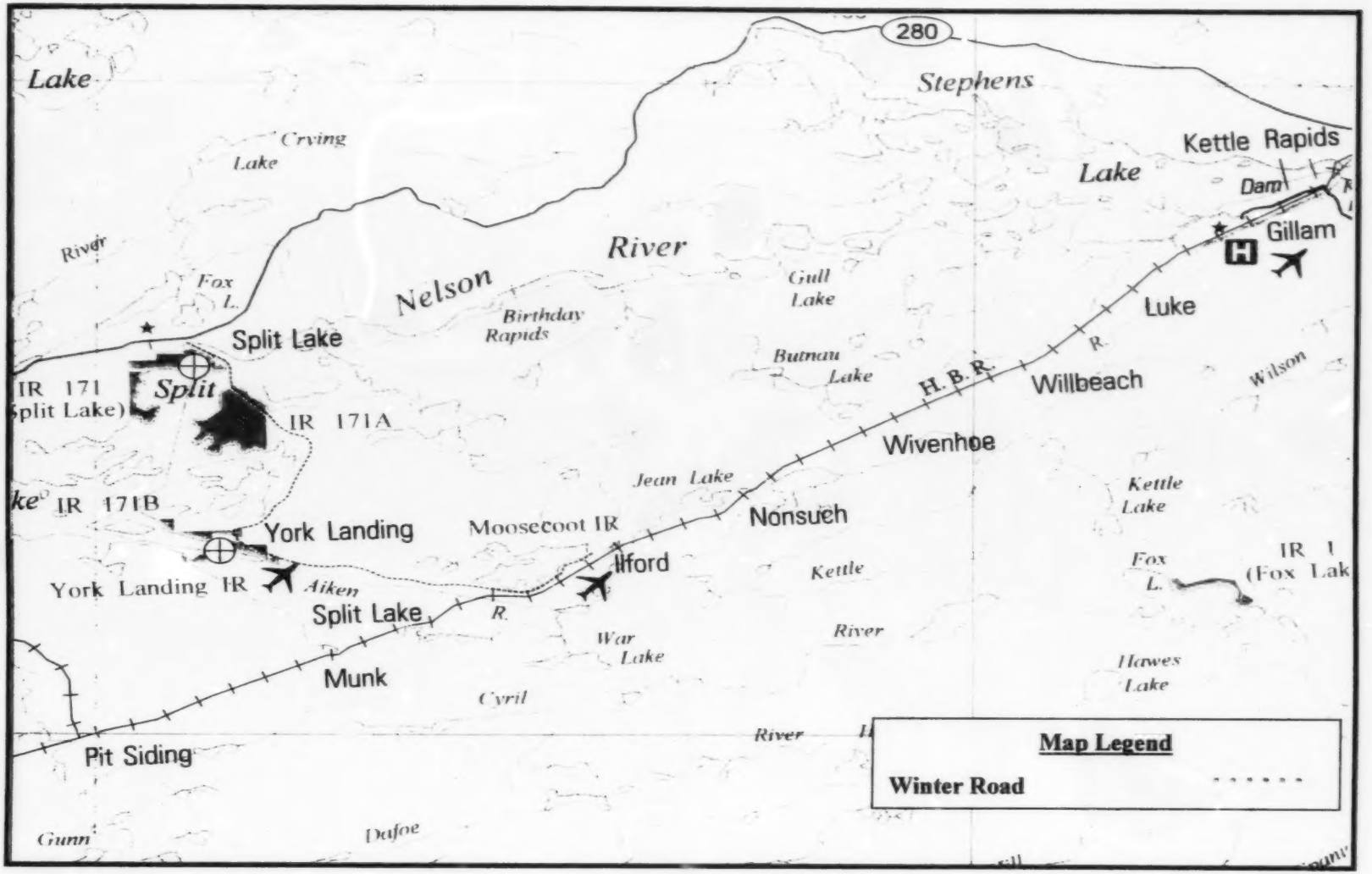
2.3 Winter Road

Ilford relies heavily on the winter road to supply the community with bulk goods. The winter road to Ilford begins at Split Lake and proceeds approximately 32 km to York Landing. From York Landing, it proceeds another 32 km to Ilford. This winter road is constructed annually by the Province of Manitoba. The winter road is shown on Figure 1.

The winter road operates approximately from mid-January to mid-April depending on weather conditions. The trip to Thompson via the winter road and P.R. 280 takes approximately three hours when weather conditions are good. The winter road was reportedly very narrow in places, often resulting in awkward negotiations when meeting oncoming traffic. The length of the winter road season has also been limited during years of mild winters. During mild winters, stream crossing pose obvious problems due to poor ice conditions. The community reported four stream crossings on the winter road, which can pose significant problems resulting in limited duration of the winter road season.

The existing winter road follows a path north of the Aiken River and the Hudson Bay Rail Line. The community has been constructing approximately 10 km of ice road south of Ilford and the Hudson Bay Rail Lines, which connects with the existing winter road approximately 10 km west of Ilford. Community members have reported this 10 km of ice road is easier to travel than the existing winter road and would like to see Manitoba Transportation and Government Services adopt this option as the preferred winter road route.

Ideally, the community would like to see an All-Weather Road constructed between Ilford and York Landing. If this was available, the existing ferry service between Split Lake and York Landing could be used during the open water months. Currently, the York Landing ferry runs approximately five days per week providing service between Split Lake and York Landing.



ILFORD AREA – WINTER ROAD SITE LOCATION PLAN

FIGURE 1

One of the key community concerns was the preservation of the rail service should an All-Weather Road ever be constructed. The community would not want to see the loss of rail service and fears this would be sacrificed should an All-Weather Road be provided.

2.4 Rail

Ilford is fortunate in that it is currently serviced by rail access. Ilford is currently serviced approximately three times per week by the Hudson Bay Railroad. Unfortunately, the timing of rail passenger service is not conducive to accommodating day trips to Thompson. This results in residents having to stay overnight in Thompson to make the return trip to Ilford. During the summer tourist season, seating on the train is also limited, often resulting in standing room only for Ilford travellers boarding the train in Thompson. Ilford residents are not happy with the current rail service as it is not consistent and does not meet their needs.

Since no significant grocery store exists in Ilford, residents must rely on train service to commute to Thompson to purchase groceries. The Hudson Bay Railroad reportedly allows three boxes of groceries per family. Ilford residents often return from Thompson with ten or more boxes of groceries. To date, no additional charges have been levied against Ilford residents for the additional freight charges, but the railway is reportedly considering such measures.

The railway is also used extensively for the shipment of freight into the community. Costs of freight delivery were reported to be $900 per box car plus freight costs. Freight charges are in the order of $0.35/kg.

Fuel is also typically delivered by rail. Since there are no gas stations in the community, residents must buy fuel by the drum for shipment into the community. Shipment costs for a 205 L drum of fuel supplied to Ilford on the train are approximately $190.

Freight shipment by train reportedly takes two to four weeks for delivery. This time frame can be very problematic when urgent supplies are needed.

2.5 Local Vehicles/Roads

There are currently 45 homes and approximately 30 vehicles in the community. There are no local resource or pioneer roads extending from the community. A small trail has been cut between Ilford and the Manitoba Hydro transmission line to the north and south. Manitoba Hydro will use these roads to access and service the transmission lines.

3.0 EXISTING COMMUNITY INFRASTRUCTURE AND SERVICES

The following provides an overview of the existing community infrastructure.

Hydro/Telephone

Ilford is serviced by the local hydro and telephone grid.

Water Supply

Water supply to most residents of the community is provided by a truck delivery standpipe system. The local school and teacherages are provided with a piped distribution system, as well as eighteen private residents on-reserve and eight private resident off-reserve.

The sewage system consists mostly of pit privies. The school, teacherages, and approximately twenty-six private homes are connected to a piped sewage collection system, which brings collected sewage to a mechanical wastewater treatment plant.

Medical

Emergency medical services are accommodated by medical evacuation flights to Thompson or Winnipeg.

Schools

Ilford has one school comprising of nursery to Grade 8 students. Approximately fifteen students need to leave the community to complete their high school in Thompson or Winnipeg.

Police

Ilford is serviced by a local RCMP out of Gillam.

Employment Opportunities

Employment opportunities are limited in Ilford. No significant forestry opportunities are available since the community is outside any forest management unit and access to forestry resources is impractical without the provision of an All-Weather Road. Some subsistence fishing and trapping is practiced by some residents. The majority of employment opportunities lies in the provision of services such as public works operations, and the provision of social services, etc.

4.0 EXISTING COMMUNITY TRANSPORT NEEDS

Based on the current population, it is estimated that Ilford ships in the order of 1,100 tonnes/year of fuel, building material, equipment, food stuffs, etc. Based on available data and community comments, it is further estimated that the relative means of freight delivery to the community is distributed as follows:

- Air Freight ..... 23 tonnes/year
- Rail ..... 677 tonnes/year
- Winter Road Freight ..... 400 tonnes/year

Total ..... **1100 tonnes/year**

Passenger movement for the Year 2000 is estimated as follows:

- Air (1,000 arrivals and departures).
- Winter Road - unknown (average 55 useable days of travel).
- Rail - up to 70 people every two weeks in the summer months (say approximately 1,400 passenger movements for a ten-month period).

Population growth for the community is estimated at 4% to 5%/year. Therefore, without a future All-Weather Road and assuming freight and passenger movement trends are proportional to existing requirements, a near quadrupling in freight and passenger movements can be expected due to the increase in population in the next 30 years.

5.0 COMMUNITY TRANSPORTATION COSTS - EXISTING VERSUS ALL-WEATHER ROAD SYSTEM

Approximate freight rates and passenger rates to and from Ilford are as follows:

- Air Freight (from Thompson) $0.78/kg
- Winter Road Freight (from Winnipeg) $0.625/kg
- Air Charter ..... $700 charter to Thompson and $1,000 charter to Winnipeg
- Rail Passenger (Thompson Round Trip/Winnipeg Round Trip) ..... $37.00/$235.00
- Rail Freight ..... $0.346/kg or box car charge of $900

Manitoba Transportation and Government Services estimate of annual potential cost savings assuming the provision of an All-Weather Road to the community are as follows:

- Freight Transport Cost Savings -$160,000/year.
- Passenger Transport Cost Savings - $85,000/year.
- Medivac Cost Savings - $100,000/year.

These savings do not include costs for the following items:

- Accommodation costs in Thompson or Winnipeg.
- Ambulance costs from Thompson Airport or Winnipeg Airport.

While the actual cost of freight and passenger transport is highly dependent on a variety of factors such as vehicle load/ultimate origin or destination/etc., it is not unreasonable to suggest the following overall transport costs based on efficient use of equipment:

	Existing Winter Road System	**All-Weather Road System**
Road Travel (to and from Thompson)	250 trips @ $30.00 = $7,500	2,050 trips @ $28.00 = $57,900
Road Freight (from Winnipeg)	400 tonnes @ $625.00 = $250,000	420 tonnes @ $500.00 = $210,000
Rail Passenger to/from Thompson	1,200 trips @ $37.00 = $44,400	nil
Rail Freight from Thompson	700 tonnes @ $350.00 = $245,000	700 tonnes @ $200.00 = $140,000
Air Freight (from Winnipeg)	20 tonnes @ $780.00 = $15,600	nil
Air Passengers (to/from Thompson)	1,200 trips @ $150.00 = $180,000	600 trips @ $150.00 = $90,000
Medivac (to Thompson)	estimated @ $150,000	estimated @ $50,000
Total System Costs	**$892,500/year**	**$547,900/year**
Total System Savings due to All-Weather Road	**$344,600/year**	

6.0 ALL-WEATHER ROAD SYSTEM - ROUTE ALTERNATIVES

Numerous All-Weather Road servicing options have been investigated. These are briefly described below:

An All-Weather Road Via Birthday Rapids to P.R. 280

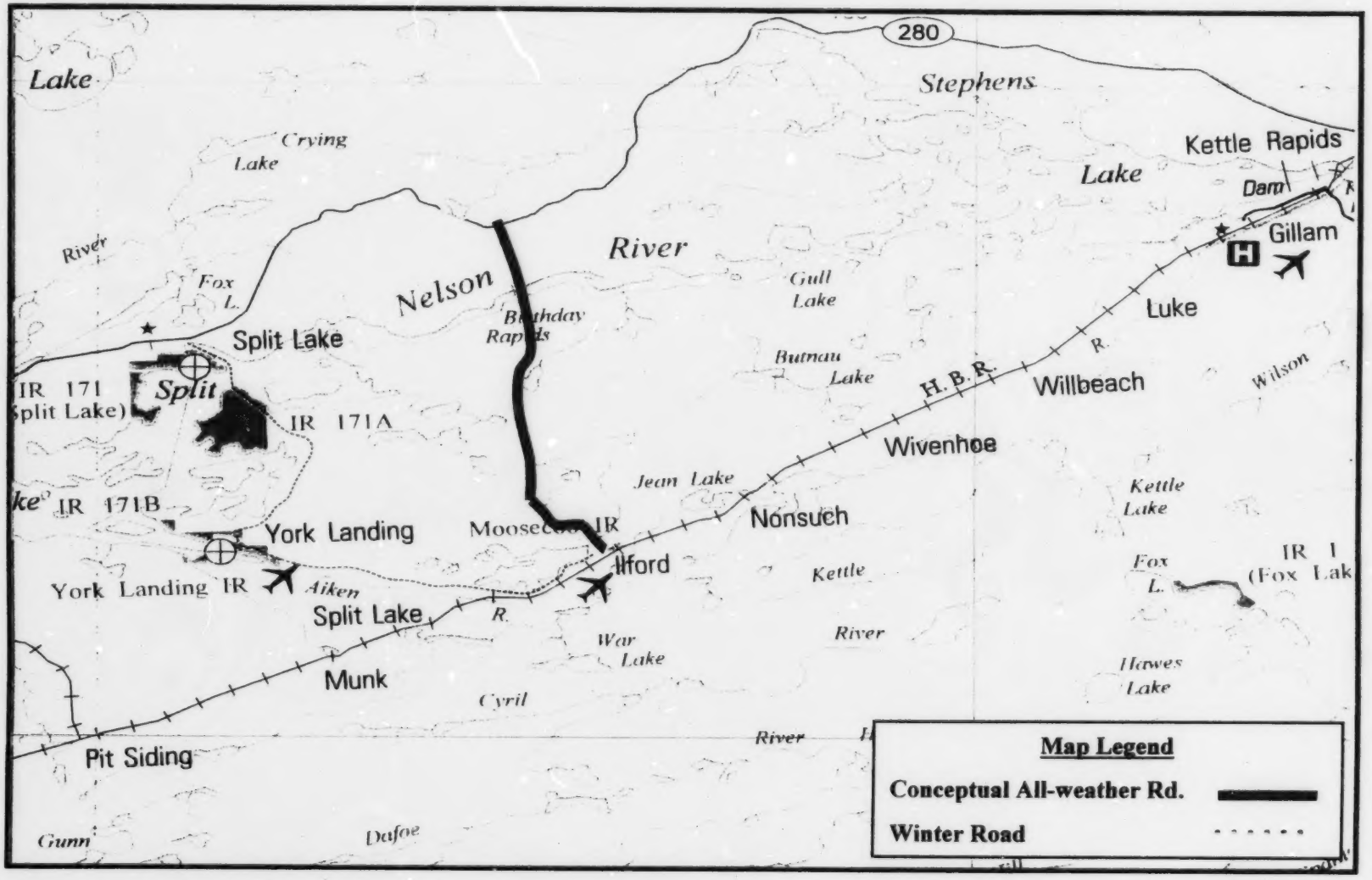
- The conceptual plan for this proposed option is shown on Figure 2.
- This option has a capital cost of approximately $45 million and includes a major bridge crossing over the Nelson River and includes access to York Landing.

An All-Weather Road Via the Proposed Gull Lake Hydro-Electric Dam to Gillam and P.R. 280

- The conceptual plan for this road is shown on Figure 3.
- This option has a capital cost of $47 million and would tie into the proposed Manitoba Hydro All-Weather Road to service the proposed Gull Lake Generating Station.
- This option incurs a significant detour of approximately 140 km to the Split Lake intersection on Provincial Road 280. This option, however, does provide All-Weather Road access to Wivenhoe and Gillam. The Nelson River crossing would be facilitated by means of crossing on Manitoba Hydro's proposed Gull Rapids hydro-electric generating station.

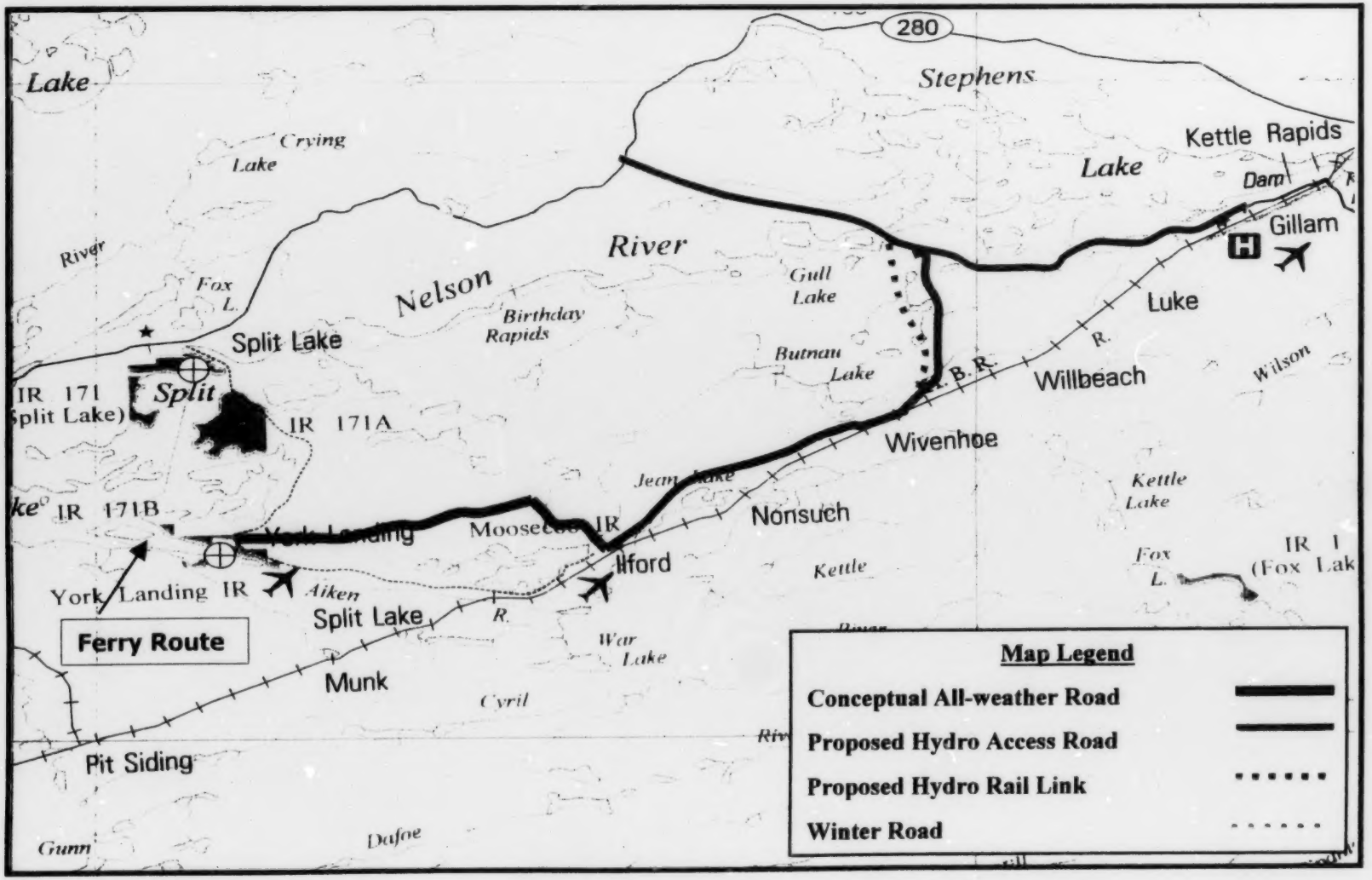
An All-Weather Road to York Landing and Ferry to Split Lake

- The conceptual plan for this option is shown on Figure 4.
- This option is the one preferred by the Ilford community for implementation as soon as possible. The cost for this option is estimated at $15.0 M for some 30 km of All-Weather Road. An All-Weather Road via York Landing would provide the community with access to the York Landing ferry, which shuttles between York Landing and Split Lake. This would permit reliable road access to Thompson seven to eight months of the year.



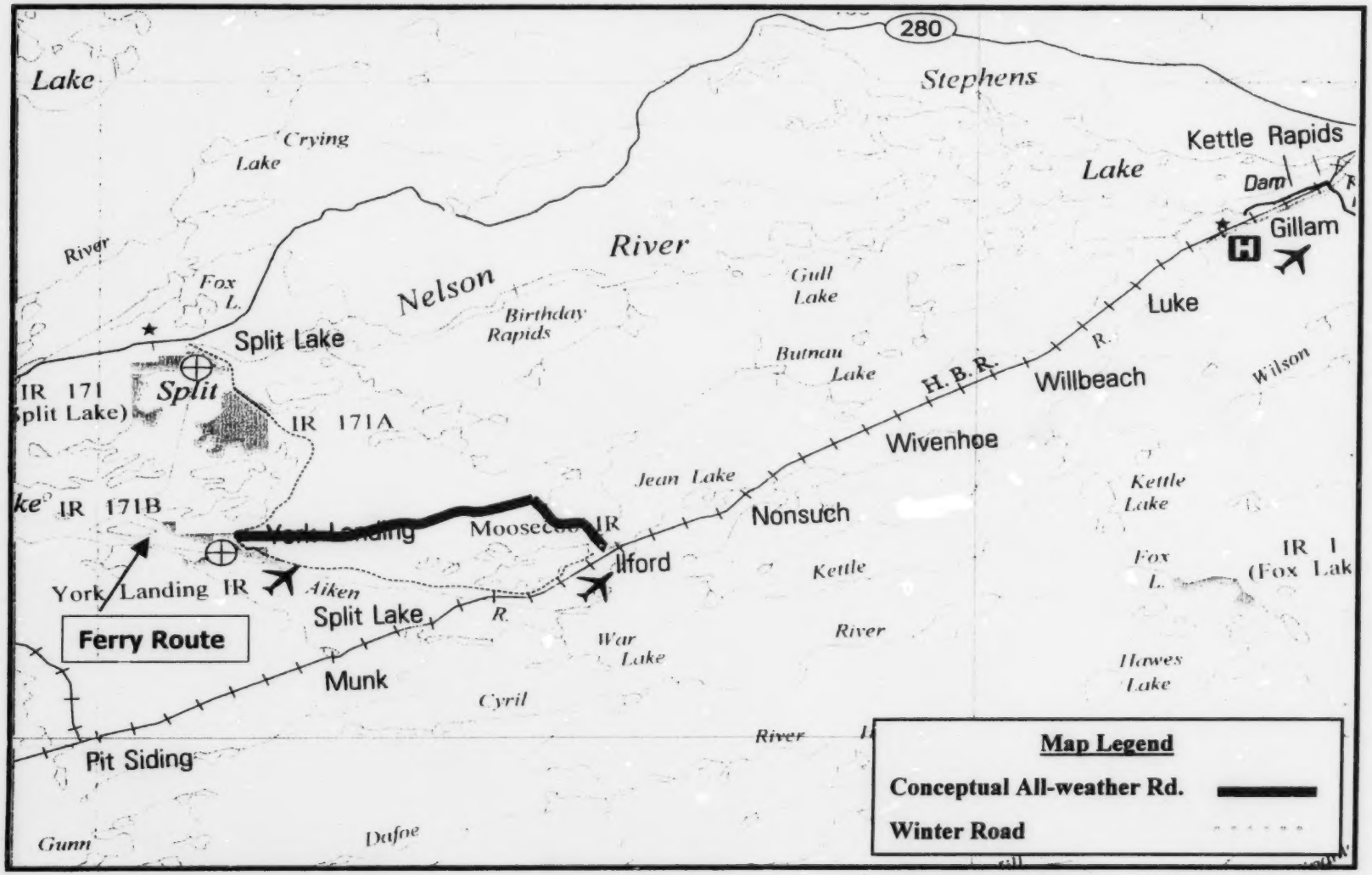
ILFORD CONCEPTUAL ALL-WEATHER ROAD - OPTION 1

FIGURE 2



ILFORD CONCEPTUAL ALL-WEATHER ROAD - OPTION 2

FIGURE 3



ILFORD CONCEPTUAL ALL-WEATHER ROAD - OPTION 3

FIGURE 4

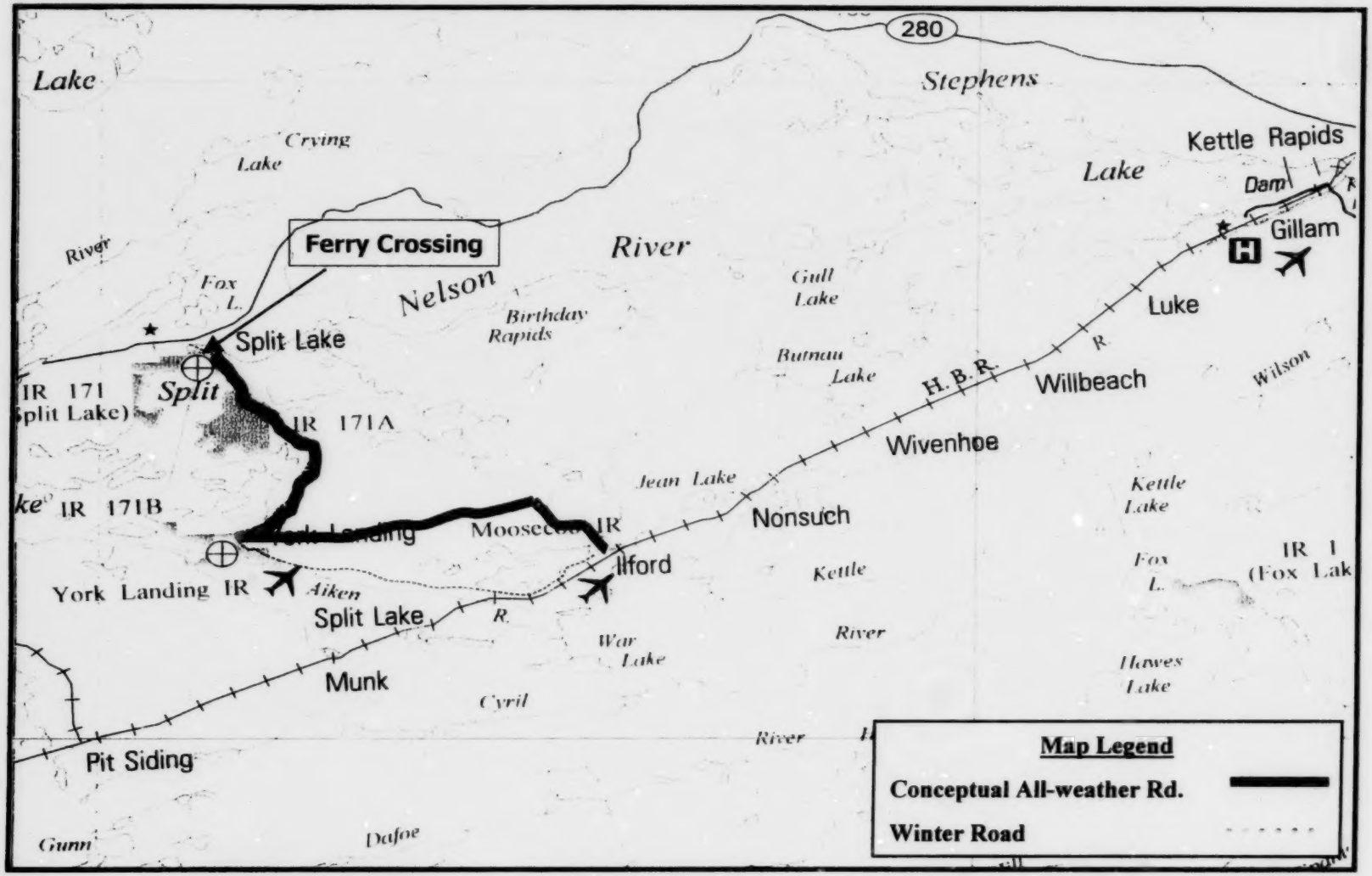
An All-Weather Road to York Landing and Around Split Lake with a Short Ferry Crossing/Winter Road

- The conceptual plan for this option is shown on Figure 5.

- This option consists of approximately 50 km of All-Weather Road via York Landing and a shorter ferry crossing at Split Lake. During winter months the ferry crossing would be replaced by an ice road.

- The estimated cost of the All-Weather Road for this option is $23.0 million. This does not include current annual costs associated with ferry operation and ice road construction.

- This option, however, does not provide year-round access during the spring thaw and winter freeze-up times. The community remains dependent on ferry service and the provision of and ice road. The advantage, however, is the ferry crossing/ice road is very short (approximately 1.25 km). Minimal vehicle delays are expected if the ferry can operate seven days a week. Given the short ferry distance, numerous ferry crossings can be made through the course of the day. During winter conditions, the ice road would provide virtually uninterrupted access. During the spring thaw and winter freeze-up, both Ilford and York Landing could rely on the Hudson Bay Railway to provide land-based economic access to Thompson.



ILFORD CONCEPTUAL ALL-WEATHER ROAD - OPTION 4

FIGURE 5

7.0 OPPORTUNITIES AND SOCIAL IMPACTS

With the provision of an All-Weather Road, the community sees new opportunities such as:

- Improved health services.
- Improved policing.
- Greater recreational opportunities.
- Employment with Manitoba Hydro.
- Employment in broader resource industry.
- Cottage development.
- Easier access to medical/dental services.
- Access to banking and other professional services.
- Possible Forestry development.
- Tourism and related industry.
- Year around travel/lower cost personal travel.

Social impacts to the community were perceived as positive and negative. An expanded social life could be good or bad. Easier access to and from Thompson would promote a better lifestyle, but it could also promote crime/drug use/etc. It would also may bring outsider development and resource exploitation.

8.0 STRATEGIC ANALYSIS AND SERVICING STRATEGY

On a strictly transportation cost-benefit basis, an All-Weather Road connection from Ilford to P.R. 280 cannot be justified. Benefits to the Ilford community have a 20-year present value of $7.0 M. Even when combined with the York Landing benefits of $6.5 M (20-year present value), this only provides a 35% coverage of the 20-year present value costs of $36 M to construct the All-Weather Road. As such, the project will require substantial additional justification on a socioeconomic basis in order to become a funding priority.

A lower cost alternative combining a shorter ferry run crossing and winter road service with an All-Weather Road from the Nelson River (opposite the Split Lake community) to York Landing and then to Ilford would have a capital cost of $23 M. If benefits remain near the identified total of $13.5 M, the overall cost coverage would be 50%.

Improved rail service (e.g., a rail bus system) would require active support from Hudson Bay Railroad and VIA for a broad area service (Thicket Portage, Pikwitonei, and Ilford). Costs of $0.5 to $1.0 million/year (not including running rights or leasing costs) may be achievable with benefits essentially relating to higher service levels at current costs.

In the longer-term, the community's best interests would be served by an AWR. As discussed, there are currently four potential alignment scenarios for such a road. The relative viability of these alternatives is influenced by as yet undetermined time frames, a go versus no-go decision of Manitoba Hydro's Gull Rapid generating station and considerable range of travel times to and from Thompson. To maximize the benefits and economic justification, there should also be a road connecting Ilford and York Landing.

It is therefore recommended that there be a route selection study undertaken to establish the most cost-effective All-Weather Road corridors and examine in more detail the probable time frames/interim winter road/ferry/rail service strategies. This would permit more appropriate decisions on short-term stream crossing installations to extend winter road operational windows, enhanced ferry and rail services, and acceptable environmental impacts.

The route selection study would initially reduce the number of alternatives under consideration and then identify the further steps necessary to allow a decision on short-term and long-term access strategies and priorities.